


```
Matches 93; Conservative 13; Mismatches 7; Indels 5; Gaps 1;
QY 2 ESGPGLVKAQTLTSLSCAVSGSIRSGGYWSWIRQHPGKGLMWIGIYHSNTYVNSL 61
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 6 ESGPGLVKAQTLTSLCTVSGGSISGQYWSWIRQHPGKGLMWIGIYHSNTYVNSL 65
QY 62 KSRIVMSVDTSENKFSIRLNSVTAADTAAYVYCARL-----DGYTLDIWGGTLYTVSS 114
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 66 KSRVITISVDTSENKQFSLKLSVTAADTAAYVYCARVLLMFGEVDYGVDMVGQGTLYTVSS 123

RESULT 12
ADP03870
ID ADP03870 standard; protein; 123 AA.
XX
AC ADP03870;
XX
DT 29-JUL-2004 (first entry)
XX
DE Murine-expressed anti-human CA IX monoclonal antibody VH protein -SEQ 10.
XX
KW monoclonal antibody; carbonic anhydrase IX; CA IX tumour antigen;
KW cytosstatic; colorectal neoplasm; renal cell carcinoma;
KW cervical intraepithelial squamous neoplasia;
KW cervical intraepithelial glandular neoplasia; oesophageal; breast cancer;
KW gene therapy; murine; mouse; human; heavy chain variable domain.
XX
OS Unidentified.
XX
PN MO2003048328-A2.
XX
PD 12-JUN-2003.
XX
PF 02-DEC-2002; 2002WO-US038550.
XX
PR 03-DEC-2001; 2001US-0337275P.
XX
PA (ABGE-) ABGENIX INC.
XX
PI Gudas J, Foltz I, Handa M, Gallo M;
XX
DR WPI; 2003-523295/49.
XX
PT New anti-CA IX monoclonal antibody, useful for treating a tumor e.g.,
PT colorectal neoplasms, colorectal tumors, cervical carcinoma, cervical
PT intraepithelial squamous and glandular neoplasia or esophageal tumors.
XX
PS Claim 1; SEQ ID NO 10; 89pp; English.
XX
CC The invention relates to a novel isolated monoclonal antibody (mAb)
CC comprising a heavy chain polypeptide and light chain polypeptide having a
CC sequence chosen from one of 53 fully defined amino acid sequences given
CC in the specification, where the antibody specifically binds carbonic
CC anhydrase IX (CA IX) tumour antigen. The antibody of the invention
CC demonstrates cytosstatic activity and may be useful for treating a tumour,
CC such as colorectal neoplasm, renal cell carcinoma, cervical carcinoma,
CC cervical intraepithelial squamous and glandular neoplasia, oesophageal
CC tumour or breast cancer, possibly via gene therapy. The current sequence
CC is that of a murine-expressed anti-human CA IX monoclonal antibody VH
CC (heavy chain variable domain) protein of the invention. The protein was
CC generated via the introduction of the human CA IX protein into a
CC transgenic mouse strain.
XX
SQ Sequence 123 AA;
QY Query Match 83.5%; Score 508.5; DB 7; Length 123;
Best Local Similarity 80.5%; Pred. No. 6.5e-39;
Matches 95; Conservative 10; Mismatches 8; Indels 5; Gaps 1;
QY 2 ESGPGLVKAQTLTSLSCAVSGSIRSGGYWSWIRQHPGKGLMWIGIYHSNTYVNSL 61
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 6 ESGPGLVKAQTLTSLCTVSGGSISGQYWSWIRQHPGKGLMWIGIYHSNTYVNSL 65
```

```
QY 62 KSRIVMSVDTSENKFSIRLNSVTAADTAAYVYCARL-----DGYTLDIWGGTLYTVSS 114
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 66 KSRVITISVDTSENKQFSLKLSVTAADTAAYVYCARAGKYGSGSYLDYMGQGTLYTVSS 123

RESULT 13
ADP03879
ID ADP03879 standard; protein; 123 AA.
XX
AC ADP03879;
XX
DT 29-JUL-2004 (first entry)
XX
DE Murine-expressed anti-human CA IX monoclonal antibody VH protein -SEQ 19.
XX
KW monoclonal antibody; carbonic anhydrase IX; CA IX tumour antigen;
KW cytosstatic; colorectal neoplasm; renal cell carcinoma;
KW cervical intraepithelial squamous neoplasia;
KW cervical intraepithelial glandular neoplasia; oesophageal; breast cancer;
KW gene therapy; murine; mouse; human; heavy chain variable domain.
XX
OS Unidentified.
XX
PN MO2003048328-A2.
XX
PD 12-JUN-2003.
XX
PF 02-DEC-2002; 2002WO-US038550.
XX
PR 03-DEC-2001; 2001US-0337275P.
XX
PA (ABGE-) ABGENIX INC.
XX
PI Gudas J, Foltz I, Handa M, Gallo M;
XX
DR WPI; 2003-523295/49.
XX
PT New anti-CA IX monoclonal antibody, useful for treating a tumor e.g.,
PT colorectal neoplasms, colorectal tumors, cervical carcinoma, cervical
PT intraepithelial squamous and glandular neoplasia or esophageal tumors.
XX
PS Claim 1; SEQ ID NO 19; 89pp; English.
XX
CC The invention relates to a novel isolated monoclonal antibody (mAb)
CC comprising a heavy chain polypeptide and light chain polypeptide having a
CC sequence chosen from one of 53 fully defined amino acid sequences given
CC in the specification, where the antibody specifically binds carbonic
CC anhydrase IX (CA IX) tumour antigen. The antibody of the invention
CC demonstrates cytosstatic activity and may be useful for treating a tumour,
CC such as colorectal neoplasm, renal cell carcinoma, cervical carcinoma,
CC cervical intraepithelial squamous and glandular neoplasia, oesophageal
CC tumour or breast cancer, possibly via gene therapy. The current sequence
CC is that of a murine-expressed anti-human CA IX monoclonal antibody VH
CC (heavy chain variable domain) protein of the invention. The protein was
CC generated via the introduction of the human CA IX protein into a
CC transgenic mouse strain.
XX
SQ Sequence 123 AA;
QY Query Match 83.5%; Score 508.5; DB 7; Length 123;
Best Local Similarity 80.5%; Pred. No. 6.5e-39;
Matches 95; Conservative 10; Mismatches 8; Indels 5; Gaps 1;
QY 2 ESGPGLVKAQTLTSLSCAVSGSIRSGGYWSWIRQHPGKGLMWIGIYHSNTYVNSL 61
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 6 ESGPGLVKAQTLTSLCTVSGGSISGQYWSWIRQHPGKGLMWIGIYHSNTYVNSL 65
QY 62 KSRIVMSVDTSENKFSIRLNSVTAADTAAYVYCAR-----LDGYTLDIWGGTLYTVSS 114
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 66 KSRVITISVDTSENKQFSLKLSVTAADTAAYVYCARERVTDYGYLDVDMVGQGTLYTVSS 123

RESULT 14
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CC such as colorectal neoplasm, renal cell carcinoma, cervical carcinoma,
CC cervical intraepithelial squamous and glandular neoplasia, oesophageal
CC tumour or breast cancer, possibly via gene therapy. The current sequence
CC is that of a murine-expressed anti-human CA IX monoclonal antibody VH
CC (heavy chain variable domain) protein of the invention. The protein was
CC generated via the introduction of the human CA IX protein into a
CC transgenic mouse strain.
XX
SQ Sequence 120 AA;
Query Match 84.1%; Score 512; DB 7; Length 120;
Best Local Similarity 81.9%; Pred. No. 3e-39;
Matches 95; Conservative 12; Mismatches 5; Indels 4; Gaps 2;
QY 2 ESGPGLVPAQTLISLSCAVSGSIRSGYMSWIRQHPKGLIEWIGYIHSGNTYNSL 61
DB 6 ESGPGLVPAQTLISLSCAVSGSIRSGYMSWIRQHPKGLIEWIGYIHSGNTYNSL 65
QY 62 KSRIAMSVDTSENKFSRLNSVTAAADTAAYVYCARLDGYT--LDIMGGGTLVTSS 114
DB 66 KSRVITISVDTSKNQPSLKLSSTVTAADTAAYVYCAR-DGINYWFPLDMGRGTLVTSS 120
RESULT 10
ADP03873
ID ADP03873 standard; protein; 120 AA.
AC ADP03873;
DT 29-JUL-2004 (first entry)
DE Murine-expressed anti-human CA IX monoclonal antibody VH protein -SEQ 13.
XX
XX monoclinal antibody; carbonic anhydrase IX; CA IX tumour antigen;
KW cytosolic; colorectal neoplasm; renal cell carcinoma;
KW cervical intraepithelial squamous neoplasia;
KW cervical intraepithelial glandular neoplasia; breast cancer;
KW gene therapy; murine; mouse; human; heavy chain variable domain.
XX
XX Unidentified.
OS
XX WO2003048328-A2.
XX
XX 12-JUN-2003.
XX
XX 02-DEC-2002; 2002WO-US038550.
XX
XX 03-DEC-2001; 2001US-0337275P.
XX
XX (ABGE-) ABGENIX INC.
XX
XX Gudas J, Foltz I, Handa M, Gallo M;
XX
XX WPI; 2003-523295/49.
XX
XX New anti-CA IX monoclonal antibody, useful for treating a tumor e.g.,
PT colorectal neoplasms, colorectal tumors, cervical carcinoma, cervical
PT intraepithelial squamous and glandular neoplasia or esophageal tumors.
XX
XX Claim 1; SEQ ID NO 13; 89pp; English.
XX
XX The invention relates to a novel isolated monoclonal antibody (mab)
CC comprising a heavy chain polypeptide and light chain polypeptide having a
CC sequence chosen from one of 53 fully defined amino acid sequences given
CC in the specification, where the antibody specifically binds carbonic
CC anhydrase IX (CA IX) tumour antigen. The antibody of the invention
CC demonstrates cytostatic activity and may be useful for treating a tumour,
CC such as colorectal neoplasm, renal cell carcinoma, cervical carcinoma,
CC cervical intraepithelial squamous and glandular neoplasia, oesophageal
CC tumour or breast cancer, possibly via gene therapy. The current sequence
CC is that of a murine-expressed anti-human CA IX monoclonal antibody VH
CC (heavy chain variable domain) protein of the invention. The protein was
CC generated via the introduction of the human CA IX protein into a

CC transgenic mouse strain.
XX
SQ Sequence 120 AA;
Query Match 84.1%; Score 512; DB 7; Length 120;
Best Local Similarity 81.9%; Pred. No. 3e-39;
Matches 95; Conservative 12; Mismatches 5; Indels 4; Gaps 2;
QY 2 ESGPGLVPAQTLISLSCAVSGSIRSGYMSWIRQHPKGLIEWIGYIHSGNTYNSL 61
DB 6 ESGPGLVPAQTLISLSCAVSGSIRSGYMSWIRQHPKGLIEWIGYIHSGNTYNSL 65
QY 62 KSRIAMSVDTSENKFSRLNSVTAAADTAAYVYCARLDGYT--LDIMGGGTLVTSS 114
DB 66 KSRVITISVDTSKNQPSLKLSSTVTAADTAAYVYCAR-DGINYWFPLDMGRGTLVTSS 120
RESULT 11
ADP03872
ID ADP03872 standard; protein; 123 AA.
AC ADP03872;
DT 29-JUL-2004 (first entry)
DE Murine-expressed anti-human CA IX monoclonal antibody VH protein -SEQ 12.
XX
XX monoclinal antibody; carbonic anhydrase IX; CA IX tumour antigen;
KW cytosolic; colorectal neoplasm; renal cell carcinoma;
KW cervical intraepithelial squamous neoplasia;
KW cervical intraepithelial glandular neoplasia; breast cancer;
KW gene therapy; murine; mouse; human; heavy chain variable domain.
XX
XX Unidentified.
OS
XX WO2003048328-A2.
XX
XX 12-JUN-2003.
XX
XX 02-DEC-2002; 2002WO-US038550.
XX
XX 03-DEC-2001; 2001US-0337275P.
XX
XX (ABGE-) ABGENIX INC.
XX
XX Gudas J, Foltz I, Handa M, Gallo M;
XX
XX WPI; 2003-523295/49.
XX
XX New anti-CA IX monoclonal antibody, useful for treating a tumor e.g.,
PT colorectal neoplasms, colorectal tumors, cervical carcinoma, cervical
PT intraepithelial squamous and glandular neoplasia or esophageal tumors.
XX
XX Claim 1; SEQ ID NO 12; 89pp; English.
XX
XX The invention relates to a novel isolated monoclonal antibody (mab)
CC comprising a heavy chain polypeptide and light chain polypeptide having a
CC sequence chosen from one of 53 fully defined amino acid sequences given
CC in the specification, where the antibody specifically binds carbonic
CC anhydrase IX (CA IX) tumour antigen. The antibody of the invention
CC demonstrates cytostatic activity and may be useful for treating a tumour,
CC such as colorectal neoplasm, renal cell carcinoma, cervical carcinoma,
CC cervical intraepithelial squamous and glandular neoplasia, oesophageal
CC tumour or breast cancer, possibly via gene therapy. The current sequence
CC is that of a murine-expressed anti-human CA IX monoclonal antibody VH
CC (heavy chain variable domain) protein of the invention. The protein was
CC generated via the introduction of the human CA IX protein into a
CC transgenic mouse strain.
XX
SQ Sequence 123 AA;
Query Match 83.7%; Score 509.5; DB 7; Length 123;
Best Local Similarity 78.8%; Pred. No. 5.2e-39;

PT New anti-CA IX monoclonal antibody, useful for treating a tumor e.g.,
 PT colorectal neoplasms, colorectal tumors, cervical carcinoma, cervical
 PT intraepithelial squamous and glandular neoplasia or esophageal tumors.
 XX
 PS Example 2; SEQ ID NO 151; 89pp; English.
 XX
 CC The invention relates to a novel isolated monoclonal antibody (mAb)
 CC comprising a heavy chain polypeptide and light chain polypeptide having a
 CC sequence chosen from one of 53 fully defined amino acid sequences given
 CC in the specification, where the antibody specifically binds carbonic
 CC anhydrase IX (CA IX) tumour antigen. The antibody of the invention
 CC demonstrates cytostatic activity and may be useful for treating a tumour,
 CC such as colorectal neoplasm, renal cell carcinoma, cervical carcinoma,
 CC cervical intraepithelial squamous and glandular neoplasia, oesophageal
 CC tumour or breast cancer, possibly via gene therapy. The current sequence
 CC is that of a murine-expressed anti-human CA IX monoclonal antibody VH
 CC (heavy chain variable domain) protein of the invention. The protein was
 CC generated via the introduction of the human CA IX protein into a
 CC transgenic mouse strain.
 CC
 XX
 SQ Sequence 121 AA;
 Query Match 84.5%; Score 514.5; DB 7; Length 121;
 Best Local Similarity 81.0%; Pred. No. 1.8e-39;
 Matches 94; Conservative 13; Mismatches 6; Indels 3; Gaps 1;
 QY 2 ESGPGLVPAQTLSLSCAVSGSIRSGGYWSWIRHPGKGLWIGYIYHSGNTYNPSTL 61
 DB 6 ESGPGLVPAQTLSLCTVSGSISSGGYWSWIRHPGKGLWIGYIYHSGNTYNPSTL 65
 QY 62 KSRVITISVDTSKNGFSLKLSVTAADTAIVVYCARL--DGYTLDIWQGTLLVTVSS 114
 DB 66 KSRVITISVDTSKNGFSLKLSVTAADTAIVVYCARVLLMFGYGMVWGQGTLLVTVSS 121

RESULT 8
 ADP03968
 ID ADP03968 standard; protein; 118 AA.
 XX
 AC ADP03968;
 XX
 DT 29-JUN-2004 (first entry)
 XX
 DE Murine-expressed anti-human CA IX monoclonal antibody VH protein SEQ 138.
 XX
 KM monoclonal antibody; carbonic anhydrase IX; CA IX tumour antigen;
 KM cytosstatic; colorectal neoplasm; renal cell carcinoma;
 KM cervical intraepithelial squamous neoplasia;
 KM cervical intraepithelial glandular neoplasia; oesophageal; breast cancer;
 KM gene therapy; murine; mouse; human; heavy chain variable domain.
 XX
 OS Unidentified.
 XX
 PN WO2003048328-A2.
 XX
 PD 12-JUN-2003.
 XX
 PF 02-DEC-2002; 2002WO-US038550.
 XX
 PR 03-DEC-2001; 2001US-0337275P.
 XX
 PA (ABGE-) ABGENIX INC.
 XX
 PI Gudus J, Foltz I, Handa M, Gallo M;
 XX
 DR WPI; 2003-523295/49.
 XX
 XX New anti-CA IX monoclonal antibody, useful for treating a tumor e.g.,
 PT colorectal neoplasms, colorectal tumors, cervical carcinoma, cervical
 PT intraepithelial squamous and glandular neoplasia or esophageal tumors.
 XX
 XX Example 2; SEQ ID NO 138; 89pp; English.

CC The invention relates to a novel isolated monoclonal antibody (mAb)
 CC comprising a heavy chain polypeptide and light chain polypeptide having a
 CC sequence chosen from one of 53 fully defined amino acid sequences given
 CC in the specification, where the antibody specifically binds carbonic
 CC anhydrase IX (CA IX) tumour antigen. The antibody of the invention
 CC demonstrates cytostatic activity and may be useful for treating a tumour,
 CC such as colorectal neoplasm, renal cell carcinoma, cervical carcinoma,
 CC cervical intraepithelial squamous and glandular neoplasia, oesophageal
 CC tumour or breast cancer, possibly via gene therapy. The current sequence
 CC is that of a murine-expressed anti-human CA IX monoclonal antibody VH
 CC (heavy chain variable domain) protein of the invention. The protein was
 CC generated via the introduction of the human CA IX protein into a
 CC transgenic mouse strain.
 CC
 XX
 SQ Sequence 118 AA;
 Query Match 84.1%; Score 512; DB 7; Length 118;
 Best Local Similarity 83.2%; Pred. No. 3e-39;
 Matches 94; Conservative 10; Mismatches 9; Indels 0; Gaps 0;
 QY 2 ESGPGLVPAQTLSLSCAVSGSIRSGGYWSWIRHPGKGLWIGYIYHSGNTYNPSTL 61
 DB 6 ESGPGLVPAQTLSLCTVSGSISSGGYWSWIRHPGKGLWIGYIYHSGNTYNPSTL 65
 QY 62 KSRVITISVDTSKNGFSLKLSVTAADTAIVVYCARLDGYTLDIWQGTLLVTVSS 114
 DB 66 KSRVITISVDTSKNGFSLKLSVTAADTAIVVYCARVYSGSDYWGQGTLLVTVSS 118

RESULT 9
 ADP03974
 ID ADP03974 standard; protein; 120 AA.
 XX
 AC ADP03974;
 XX
 DT 29-JUN-2004 (first entry)
 XX
 DE Murine-expressed anti-human CA IX monoclonal antibody VH protein SEQ 144.
 XX
 KM monoclonal antibody; carbonic anhydrase IX; CA IX tumour antigen;
 KM cytosstatic; colorectal neoplasm; renal cell carcinoma;
 KM cervical intraepithelial squamous neoplasia;
 KM cervical intraepithelial glandular neoplasia; oesophageal; breast cancer;
 KM gene therapy; murine; mouse; human; heavy chain variable domain.
 XX
 OS Unidentified.
 XX
 PN WO2003048328-A2.
 XX
 PD 12-JUN-2003.
 XX
 PF 02-DEC-2002; 2002WO-US038550.
 XX
 PR 03-DEC-2001; 2001US-0337275P.
 XX
 PA (ABGE-) ABGENIX INC.
 XX
 PI Gudus J, Foltz I, Handa M, Gallo M;
 XX
 DR WPI; 2003-523295/49.
 XX
 XX New anti-CA IX monoclonal antibody, useful for treating a tumor e.g.,
 PT colorectal neoplasms, colorectal tumors, cervical carcinoma, cervical
 PT intraepithelial squamous and glandular neoplasia or esophageal tumors.
 XX
 XX Example 2; SEQ ID NO 144; 89pp; English.
 CC The invention relates to a novel isolated monoclonal antibody (mAb)
 CC comprising a heavy chain polypeptide and light chain polypeptide having a
 CC sequence chosen from one of 53 fully defined amino acid sequences given
 CC in the specification, where the antibody specifically binds carbonic
 CC anhydrase IX (CA IX) tumour antigen. The antibody of the invention
 CC demonstrates cytostatic activity and may be useful for treating a tumour,

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PD 12-JUN-2003.
XX
XX 02-DEC-2002; 2002MO-US038550.
XX
XX 03-DEC-2001; 2001US-0337275P.
XX
XX (ABGE-) ABGENIX INC.
XX
XX Gudas J, Foltz I, Handa M, Gallo M;
XX
XX WPI; 2003-523295/49.
XX
XX New anti-CA IX monoclonal antibody, useful for treating a tumor e.g.,
XX colorectal neoplasms, colorectal tumors, cervical carcinoma, cervical
XX intraepithelial squamous and glandular neoplasia or esophageal tumors.
XX
XX Example 2; SEQ ID NO 152; 89pp; English.
XX
XX The invention relates to a novel isolated monoclonal antibody (mAb)
XX comprising a heavy chain polypeptide and light chain polypeptide having a
XX sequence chosen from one of 53 fully defined amino acid sequences given
XX in the specification, where the antibody specifically binds carbonic
XX anhydrase IX (CA IX) tumour antigen. The antibody of the invention
XX demonstrates cytostatic activity and may be useful for treating a tumour,
XX such as colorectal neoplasm, renal cell carcinoma, cervical carcinoma,
XX cervical intraepithelial squamous and glandular neoplasia, oesophageal
XX tumour or breast cancer, possibly via gene therapy. The current sequence
XX is that of a murine-expressed anti-human CA IX monoclonal antibody VH
XX (heavy chain variable domain) protein of the invention. The protein was
XX generated via the introduction of the human CA IX protein into a
XX transgenic mouse strain.
XX
XX Sequence 121 AA;
SQ
XX
XX Query Match 85.1%; Score 518.5; DB 7; Length 121;
XX Best Local Similarity 81.9%; Pred. No. 7.7e-40;
XX Matches 95; Conservative 11; Mismatches 7; Indels 3; Gaps 1;
OY 2 BSGPGLVPRACQLTSLSCAVSGSIRSGGYWMSWIRHPEKGLWIGIYHSNTYINPSL 61
XX |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 6 BSGPGLVPRSQTLSTCTVSGSGISGGYWMSWIRHPEKGLWIGIYHSNTYINPSL 65
OY 62 KSRIMASVDTSNENKSLRLNSVTADTAAYVCARLD---GYTLDIWGGTGLTVSS 114
XX |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 66 KSRVITISVDTSKNPSLKLSSVTADTAAYVCARYDILGTGAPDLMGGCTMVTYSS 121
XX
XX RESULT 6
XX ADP03871
XX ID ADP03871 standard; protein; 125 AA.
XX
XX ADP03871;
XX
XX 29-JUL-2004 (first entry)
XX
XX Murine-expressed anti-human CA IX monoclonal antibody VH protein -SEQ 11.
XX
XX monoclonal antibody; carbonic anhydrase IX; CA IX tumour antigen;
XX cytostatic; colorectal neoplasm; renal cell carcinoma;
XX cervical intraepithelial squamous neoplasia;
XX cervical intraepithelial glandular neoplasia; oesophageal; breast cancer;
XX gene therapy; murine; mouse; human; heavy chain variable domain.
XX
XX Unidentified.
XX
XX WO2003048328-A2.
XX
XX 12-JUN-2003.
XX
XX 02-DEC-2002; 2002MO-US038550.
XX
XX 03-DEC-2001; 2001US-0337275P.
XX
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PA (ABGE-) ABGENIX INC.
XX
XX Gudas J, Foltz I, Handa M, Gallo M;
XX
XX WPI; 2003-523295/49.
XX
XX New anti-CA IX monoclonal antibody, useful for treating a tumor e.g.,
XX colorectal neoplasms, colorectal tumors, cervical carcinoma, cervical
XX intraepithelial squamous and glandular neoplasia or esophageal tumors.
XX
XX Claim 1; SEQ ID NO 11; 89pp; English.
XX
XX The invention relates to a novel isolated monoclonal antibody (mAb)
XX comprising a heavy chain polypeptide and light chain polypeptide having a
XX sequence chosen from one of 53 fully defined amino acid sequences given
XX in the specification, where the antibody specifically binds carbonic
XX anhydrase IX (CA IX) tumour antigen. The antibody of the invention
XX demonstrates cytostatic activity and may be useful for treating a tumour,
XX such as colorectal neoplasm, renal cell carcinoma, cervical carcinoma,
XX cervical intraepithelial squamous and glandular neoplasia, oesophageal
XX tumour or breast cancer, possibly via gene therapy. The current sequence
XX is that of a murine-expressed anti-human CA IX monoclonal antibody VH
XX (heavy chain variable domain) protein of the invention. The protein was
XX generated via the introduction of the human CA IX protein into a
XX transgenic mouse strain.
XX
XX Sequence 125 AA;
SQ
XX
XX Query Match 85.0%; Score 517.5; DB 7; Length 125;
XX Best Local Similarity 81.7%; Pred. No. 9.8e-40;
XX Matches 98; Conservative 9; Mismatches 6; Indels 7; Gaps 2;
OY 2 BSGPGLVPRACQLTSLSCAVSGSIRSGGYWMSWIRHPEKGLWIGIYHSNTYINPSL 61
XX |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 6 BSGPGLVPRSQTLSTCTVSGSGISGGYWMSWIRHPEKGLWIGIYHSNTYINPSL 65
OY 62 KSRIMASVDTSNENKSLRLNSVTADTAAYVCAR----LDGY--TLDIWGGTGLTVSS 114
XX |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 66 KSRITISVDTSKNPSLKLSSVTADTAAYVCARYDFLIGYPPAPDLMGGCTMVTYSS 125
XX
XX RESULT 7
XX ADP03981
XX ID ADP03981 standard; protein; 121 AA.
XX
XX ADP03981;
XX
XX 29-JUL-2004 (first entry)
XX
XX Murine-expressed anti-human CA IX monoclonal antibody VH protein SEQ 151.
XX
XX monoclonal antibody; carbonic anhydrase IX; CA IX tumour antigen;
XX cytostatic; colorectal neoplasm; renal cell carcinoma;
XX cervical intraepithelial squamous neoplasia;
XX cervical intraepithelial glandular neoplasia; oesophageal; breast cancer;
XX gene therapy; murine; mouse; human; heavy chain variable domain.
XX
XX Unidentified.
XX
XX WO2003048328-A2.
XX
XX 12-JUN-2003.
XX
XX 02-DEC-2002; 2002MO-US038550.
XX
XX 03-DEC-2001; 2001US-0337275P.
XX
XX (ABGE-) ABGENIX INC.
XX
XX Gudas J, Foltz I, Handa M, Gallo M;
XX
XX WPI; 2003-523295/49.
XX
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FT      Region /note= "FR3 region"
FT      96. .103
FT      /note= "CDR2 region"
FT      Region 104. .114
FT      /note= "FR4 region"
XX
XX      WO200253595-A1.
XX
XX      11-JUL-2002.
XX
XX      27-DEC-2001; 2001WO-SE002908.
XX
XX      29-DEC-2000; 2000SE-00004892.
XX
XX      (PHAA ) PHARMACIA DIAGNOSTICS AB.
XX
XX      Flicker S, Steinberger P, Kraft D, Valenta R;
XX
XX      WPI; 2002-583604/62.
XX
XX      N-PSDB; ABK89638.
XX
XX      Group 2 allergen-specific immunoglobulins (Ig) E fabs or IgG comprising
PT      variable region of group 2 allergen specific-human IgE fabs, useful for
PT      diagnosing or passive immunotherapy of type I allergy, for environmental
PT      allergen detection.
XX
XX      Disclosure; Page 37; 45pp; English.
XX
XX      This invention relates to the DNA and protein sequences of group 2
CC      allergen-specific human IgE fabs and methods for their use. The proteins
CC      of the invention may have anti-allergic activities and may be used as a
CC      vaccine or an inhibitor of binding of grass pollen allergic patient's IgE
CC      antibodies to Phl p 2 (a major timothy grass pollen allergen). The group
CC      2 allergen-specific fabs of the invention may be useful for environmental
CC      allergen detection and for standardisation of allergen extracts. The fabs
CC      - or a vaccine against a type I allergy is useful for passive
CC      immunotherapy of type I allergy, it is also useful for diagnosing a type
CC      I allergy. The allergen-specific fabs of the invention are useful for
CC      inter alia, diagnosis, therapy and prevention of type I allergy. They are
CC      also useful for identification of group 2 allergen-containing pollen and
CC      may be used for blocking the binding of grass pollen allergic patients
CC      IgE antibodies to Phl p 2. The present sequence represents the human IgG
CC      fab, clone 60 heavy chain protein of the invention
XX
XX      SQ      Sequence 114 AA:
XX
XX      Query Match      89.7%; Score 546; DB 5; Length 114;
XX      Best Local Similarity 89.5%; Pred. No. 2.2e-42;
XX      Matches 102; Conservative 4; Mismatches 8; Indels 0; Gaps 0;
XX
XX      QY      1 LESGPGLVKPAQTLSLSCAVSGGSIIRSGGYWMIROHPGKLEWIGIYHSGMTYYNPS 60
XX      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
XX      1 LESGPGLVKPSQTLSLCTYSGGSIIRSGGYWMIROHPGKLEWIGIYHSGMTYYNPS 60
XX
XX      DB      61 LKSHIAMSVDTSSENKFSILRLNSVTADTAIVYYCARLDGYTLDIWGQGLTVTVSS 114
XX      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
XX      61 LKSRITWSVDTSKHFSRLTSVTADTAIVYYCARSDGYTLDMNGQGLTVTVSS 114
XX
XX      QY      61 LKSHIAMSVDTSSENKFSILRLNSVTADTAIVYYCARLDGYTLDIWGQGLTVTVSS 114
XX      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
XX      61 LKSRITWSVDTSKHFSRLTSVTADTAIVYYCARSDGYTLDMNGQGLTVTVSS 114
XX
XX      RESULT 4
XX      ADP03977
XX      ID      ADP03977 standard; protein; 122 AA.
XX
XX      AC      ADP03977;
XX
XX      DT      29-JUL-2004 (first entry)
XX
XX      DE      Murine-expressed anti-human CA IX monoclonal antibody VH protein SEQ 147.
XX
XX      KW      monoclonal antibody; carbonic anhydrase IX; CA IX tumour antigen;
XX      cytosolatic; colorectal neoplasm; renal cell carcinoma;
XX      cervical intraepithelial glandular neoplasia;
XX      cervical intraepithelial glandular neoplasia; oesophageal; breast cancer;
XX
```

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KW      gene therapy; murine; mouse; human; heavy chain variable domain.
XX
XX      OS      Unidentified.
XX
XX      PN      WO2003048328-A2.
XX
XX      PD      12-JUN-2003.
XX
XX      PF      02-DEC-2002; 2002WO-US038550.
XX
XX      PR      03-DEC-2001; 2001US-0337275P.
XX
XX      PA      (ABGE-) AGENIX INC.
XX
XX      PI      Gudas J, Foltz I, Handa M, Gallo M;
XX
XX      DR      WPI; 2003-523295/49.
XX
XX      PT      New anti-CA IX monoclonal antibody, useful for treating a tumor e.g.,
XX      colorectal neoplasms, colorectal tumors, cervical carcinoma, cervical
XX      intraepithelial squamous and glandular neoplasia or esophageal tumors.
XX
XX      PS      Example 2; SEQ ID NO 147; 89pp; English.
XX
XX      CC      The invention relates to a novel isolated monoclonal antibody (mAb)
XX      comprising a heavy chain polypeptide and light chain polypeptide having a
XX      sequence chosen from one of 53 fully defined amino acid sequences given
XX      in the specification, where the antibody specifically binds carbonic
XX      anhydrase IX (CA IX) tumour antigen. The antibody of the invention
XX      demonstrates cytosolatic activity and may be useful for treating a tumour,
XX      such as colorectal neoplasm, renal cell carcinoma, cervical carcinoma,
XX      cervical intraepithelial squamous and glandular neoplasia, oesophageal
XX      tumour or breast cancer, possibly via gene therapy. The current sequence
XX      is that of a murine-expressed anti-human CA IX monoclonal antibody VH
XX      (heavy chain variable domain) protein of the invention. The protein was
XX      generated via the introduction of the human CA IX protein into a
XX      transgenic mouse strain.
XX
XX      SQ      Sequence 122 AA:
XX
XX      Query Match      85.2%; Score 519; DB 7; Length 122;
XX      Best Local Similarity 81.2%; Pred. No. 7e-40;
XX      Matches 95; Conservative 12; Mismatches 6; Indels 4; Gaps 1;
XX
XX      QY      2 ESGPGLVKPAQTLSLSCAVSGGSIIRSGGYWMIROHPGKLEWIGIYHSGMTYYNPSL 61
XX      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
XX      DB      6 ESGPGLVKPSQTLSLCTYSGGSIIRSGGYWMIROHPGKLEWIGIYHSGMTYYNPSL 65
XX      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
XX      QY      62 KSRITWSVDTSENKFSILRLNSVTADTAIVYYCAR---LDGYTLDIWGQGLTVTVSS 114
XX      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
XX      DB      66 KSRITWSVDTSKHFSRLTSVTADTAIVYYCARYYDILGDMVWGQGLTVTVSS 122
XX
XX      RESULT 5
XX      ADP03982
XX      ID      ADP03982 standard; protein; 121 AA.
XX
XX      AC      ADP03982;
XX
XX      DT      29-JUL-2004 (first entry)
XX
XX      DE      Murine-expressed anti-human CA IX monoclonal antibody VH protein SEQ 152.
XX
XX      KW      monoclonal antibody; carbonic anhydrase IX; CA IX tumour antigen;
XX      cytosolatic; colorectal neoplasm; renal cell carcinoma;
XX      cervical intraepithelial squamous neoplasia;
XX      cervical intraepithelial glandular neoplasia; oesophageal; breast cancer;
XX      gene therapy; murine; mouse; human; heavy chain variable domain.
XX
XX      OS      Unidentified.
XX
XX      PN      WO2003048328-A2.
XX
```

PT variable region of group 2 allergen specific-human IGE Fabs, useful for
PT diagnosing or passive immunotherapy of type I allergy, for environmental
XX allergen detection.
XX
XX
XX Disclosure; Page 36; 45pp; English.
XX
XX This invention relates to the DNA and protein sequences of group 2
CC allergen-specific human IGE Fabs and methods for their use. The proteins
CC of the invention may have anti-allergic activities and may be used as a
CC vaccine or an inhibitor of binding of grass pollen allergen. The group
CC antibodies to Phi P 2 (a major timothy grass pollen allergen). The group
CC 2 allergen-specific Fabs of the invention may be useful for environmental
CC allergen detection and for standardisation of allergen extracts. The Fabs
CC - or a vaccine against a type I allergy is useful for passive
CC immunotherapy of type I allergy, it is also useful for diagnosing a type
CC I allergy. The allergen-specific Fabs of the invention are useful for
CC inter alia, diagnosis, therapy and prevention of type I allergy. They are
CC also useful for identification of group 2 allergen-containing pollen and
CC may be used for blocking the binding of grass pollen allergic patients
CC IGE antibodies to Phi P 2. The present sequence represents the human IGE
CC Fab, clone 94 heavy chain protein of the invention
XX
XX
SQ Sequence 114 AA;
Query Match 100.0%; Score 609; DB 5; Length 114;
Best Local Similarity 100.0%; Pred. No. 3.5e-48;
Matches 114; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 LESGGLVLPACTLSLSCAVSGSIRSGYWSWRHPGKLEWIGYIYHSGNTYNS 60
DB 1 LESGGLVLPACTLSLSCAVSGSIRSGYWSWRHPGKLEWIGYIYHSGNTYNS 60
QY 61 LKSRIAMSVDTSENKFSRLNSVTADTAAYVYCARLDGTYLDIMWOGTLVTYSS 114
DB 61 LKSRIAMSVDTSENKFSRLNSVTADTAAYVYCARLDGTYLDIMWOGTLVTYSS 114
RESULT 2
ABG30447
ID ABG30447 standard; protein; 114 AA.
XX
XX
XX ABG30447;
XX
XX 21-OCT-2002 (first entry)
XX
XX Human IGE Fab clone 100 heavy chain protein.
XX
XX Human; fab; anti-allergic; vaccine; grass pollen; Phi P 2;
XX timothy grass pollen allergen; passive immunotherapy.
XX
XX Homo sapiens.
XX
XX
XX Key Location/Qualifiers
XX FH 1..26
XX FT /note= "FR1 region"
XX FT 27..33
XX FT /note= "CDR1 region"
XX FT 34..47
XX FT /note= "FR2 region"
XX FT 48..63
XX FT /note= "CDR2 protein"
XX FT 64..95
XX FT /note= "FR3 region"
XX FT 96..103
XX FT /note= "CDR2 region"
XX FT 104..114
XX FT /note= "FR4 region"
XX
XX
XX WO200253595-A1.
XX
XX 11-JUL-2002.
XX
XX 27-DEC-2001; 2001WO-SE002908.

XX
XX 29-DEC-2000; 2000SF-00004892.
XX
XX (PMAA) PHARMACIA DIAGNOSTICS AB.
XX
XX Flicker S, Steindberger P, Kraft D, Valenta R;
XX
XX WPI: 2002-583604/62.
XX DR N-PSDB; ABK89639.
XX
XX Group 2 allergen-specific immunoglobulins (Ig) E Fabs or IgG comprising
PT variable region of group 2 allergen specific-human IGE Fabs, useful for
PT diagnosing or passive immunotherapy of type I allergy, for environmental
PT allergen detection.
XX
XX Disclosure; Page 38; 45pp; English.
XX
XX This invention relates to the DNA and protein sequences of group 2
CC allergen-specific human IGE Fabs and methods for their use. The proteins
CC of the invention may have anti-allergic activities and may be used as a
CC vaccine or an inhibitor of binding of grass pollen allergen. The group
CC antibodies to Phi P 2 (a major timothy grass pollen allergen). The group
CC 2 allergen-specific Fabs of the invention may be useful for environmental
CC allergen detection and for standardisation of allergen extracts. The Fabs
CC - or a vaccine against a type I allergy is useful for passive
CC immunotherapy of type I allergy, it is also useful for diagnosing a type
CC I allergy. The allergen-specific Fabs of the invention are useful for
CC inter alia, diagnosis, therapy and prevention of type I allergy. They are
CC also useful for identification of group 2 allergen-containing pollen and
CC may be used for blocking the binding of grass pollen allergic patients
CC IGE antibodies to Phi P 2. The present sequence represents the human IGE
CC Fab, clone 100 heavy chain protein of the invention
XX
XX
SQ Sequence 114 AA;
Query Match 89.8%; Score 547; DB 5; Length 114;
Best Local Similarity 89.5%; Pred. No. 1.7e-42;
Matches 102; Conservative 5; Mismatches 7; Indels 0; Gaps 0;
QY 1 LESGGLVLPACTLSLSCAVSGSIRSGYWSWRHPGKLEWIGYIYHSGNTYNS 60
DB 1 LESGGLVLPACTLSLSCAVSGSIRSGYWSWRHPGKLEWIGYIYHSGNTYNS 60
QY 61 LKSRIAMSVDTSENKFSRLNSVTADTAAYVYCARLDGTYLDIMWOGTLVTYSS 114
DB 61 LKSRIAMSVDTSENKFSRLNSVTADTAAYVYCARLDGTYLDIMWOGTLVTYSS 114
RESULT 3
ABG30446
ID ABG30446 standard; protein; 114 AA.
XX
XX
XX ABG30446;
XX
XX 21-OCT-2002 (first entry)
XX
XX Human IGE Fab clone 60 heavy chain protein.
XX
XX Human; fab; anti-allergic; vaccine; grass pollen; Phi P 2;
XX timothy grass pollen allergen; passive immunotherapy.
XX
XX Homo sapiens.
XX
XX
XX Key Location/Qualifiers
XX FH 1..26
XX FT /note= "FR1 region"
XX FT 27..33
XX FT /note= "CDR1 region"
XX FT 34..47
XX FT /note= "FR2 region"
XX FT 48..63
XX FT /note= "CDR2 protein"
XX FT 64..95
XX
XX
XX Region
XX
XX

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OM protein - protein search, using sw model

Run on: April 3, 2006, 14:17:09 ; Search time 99.1455 Seconds
(without alignments)
505.209 Million cell updates/sec

Title: US-10-027-725A-7

Perfect score: 609
Sequence: 1 LESGPGLVKPAQTLSLSCAV.....RLDGYTLDIWGQTLVTWSS 114

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_21:*

- 1: geneseqp1980s:*
- 2: geneseqp1990s:*
- 3: geneseqp2000s:*
- 4: geneseqp2001s:*
- 5: geneseqp2002s:*
- 6: geneseqp2003as:*
- 7: geneseqp2003bs:*
- 8: geneseqp2004s:*
- 9: geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	609	100.0	114	5	ABG30445
2	547	89.8	114	5	ABG30447
3	546	89.7	114	5	ABG30446
4	519	85.2	122	7	ADP03977
5	518.5	85.1	121	7	ADP03982
6	517.5	85.0	125	7	ADP03871
7	514.5	84.5	121	7	ADP03981
8	512	84.1	118	7	ADP03968
9	512	84.1	120	7	ADP03974
10	512	84.1	120	7	ADP03873
11	509.5	83.7	123	7	ADP03872
12	508.5	83.5	123	7	ADP03870
13	508.5	83.5	123	7	ADP03879
14	508.5	83.5	123	7	ADP03878
15	508.5	83.5	125	7	ADP03868
16	508.5	83.5	125	7	ADP03876
17	508.5	83.5	144	9	ADX98263
18	506.5	83.2	119	7	ADP03961
19	506.5	83.2	123	2	AAW78433
20	506.5	83.2	123	5	ABB97976
21	506.5	83.2	123	7	ADG88414
22	505.5	83.0	119	7	ADP03970
23	505	82.9	252	5	ABP45983
24	505	82.9	252	7	ADG96810

25	504.5	82.8	125	7	ADP03983	Adp03983	Murine-ex
26	504.5	82.8	480	9	ADZ57697	Adz57697	Anti-cMet
27	504	82.8	120	7	ADP03969	Adp03969	Murine-ex
28	503.5	82.7	127	7	ADP03874	Adp03874	Murine-ex
29	503	82.6	124	7	ADP03935	Adp03935	Murine-ex
30	502	82.4	123	4	AAB62745	Aab62745	Human HIV
31	501.5	82.3	117	7	ADCC9784	Adc99784	Anti-huma
32	501.5	82.3	117	7	ADDO5388	Add05388	Anti-MOC1
33	501.5	82.3	117	7	ADFO9826	Adfo9826	Human ant
34	501	82.3	149	9	ADZ57713	Adz57713	Germline
35	500.5	82.2	123	9	ADX98417	Adx98417	Human ant
36	500.5	82.2	251	6	ABJ19829	Abj19829	Human VEG
37	500.5	82.2	251	8	ADH13871	Adh13871	Human vas
38	500	82.1	125	8	ADSL6556	Adsl6556	Human ant
39	499.5	82.0	120	4	AAB62775	Aab62775	Human HIV
40	499	81.9	473	4	AAB36206	Aab36206	Human imm
41	498.5	81.9	253	5	ABP45608	Abp45608	Human Bly
42	498.5	81.9	253	7	ADG96435	Adg96435	Single ch
43	497.5	81.7	148	9	ADX98259	Adx98259	Human ant
44	497	81.6	110	7	ADP03934	Adp03934	Murine-ex
45	497	81.6	121	7	ADJ80377	Adj80377	Antibody

ALIGNMENTS

RESULT 1		
ID	ABG30445	ABG30445 standard; protein; 114 AA.
XX	ABG30445;	
AC		
XX		
DT	21-OCT-2002	(first entry)
XX		
DE	Human IGE Fab clone 94 heavy chain protein.	
XX		
KW	Human; fab; antiallergic; vaccine; grass pollen; Phi p 2;	
KW	timothy grass pollen allergen; passive immunotherapy.	
XX		
OS	Homo sapiens.	
XX		
FH	Key	Location/Qualifiers
FT	Region	1..26
FT	Region	/note= "FR1 region"
FT	Region	27..33
FT	Region	/note= "CDR1 region"
FT	Region	34..47
FT	Region	/note= "FR2 region"
FT	Region	48..63
FT	Region	/note= "CDR2 protein"
FT	Region	64..95
FT	Region	/note= "FR3 region"
FT	Region	96..103
FT	Region	/note= "CDR2 region"
FT	Region	104..114
FT	Region	/note= "FR4 region"
XX		
PN	WO200253595-A1.	
XX		
PD	11-JUL-2002.	
XX		
PF	27-DEC-2001; 2001WO-SB002908.	
XX		
PR	29-DEC-2000; 2000SE-00004892.	
XX		
PA	(PHAA) PHARMACIA DIAGNOSTICS AB.	
XX		
PI	Flicker S, Steinberger P, Kraft D, Valenta R;	
XX		
XX	WPI: 2002-583604/62.	
DR	N-PSDB; ABK89637.	
XX		
PT	Group 2 allergen-specific immunoglobulins (Ig) E Fabs or Igg comprising	